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NIMA Declassification/Release Instructions on File

COMOR General file

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27 June 1961

MEMORANDUM FOR: Committee on Overhead Reconnaissance

SUBJECT: Downgrading of TALENT-KEYHOLE
Photo Maps

1. In response to an inquiry of State Department representative at the last meeting of COMOR, [redacted] has prepared the attached draft on the above subject.

2. The Committee is requested to study this paper and be prepared to discuss it at the meeting on Friday, 30 June.

JAMES O. REBER

Chairman

Committee on Overhead Reconnaissance

Attachment

Draft on subject paper.

Copy 2--State TCO
3--OSD
4--JCS TCO
5--OACSI TCO
6--ONI TCO
7, 8, 9--AFCIN TCO
10, 11--NSA TCO

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Downgrading of TALENT-KEYHOLE Photo Maps

1. Production of TALENT-KEYHOLE photo maps through joint participation of the Army Map Service and CIA has been undertaken as one means of using the results of the KEYHOLE reconnaissance program to satisfy certain requirements of the intelligence community.

The photo maps will serve the following purposes:

a. To provide a working tool for intelligence analysts who are responsible for assessing the development of Sino-Soviet military and scientific programs and who are relying increasingly on intensive area analysis in arriving at judgments.

b. To provide all intelligence analysts with an infallible data base of priority information against which to check new material and from which to determine areal interrelationships.

c. To assist intelligence collectors by providing accurate maps on which to pinpoint targets to be collected by means other than satellite reconnaissance. In addition, the maps can prove valuable as guides toward the elimination of collection requirements already satisfied.

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d. To provide the military services with complete large-scale interim maps to cover planning needs until topographic maps can be compiled.

e. To improve the geodetic accuracy of existing map holdings. (Although the photo maps are primarily oriented toward presenting collated intelligence, the best available geodetic control data is used in their construction.)

f. To provide a systematic presentation of annotated KEYHOLE photography for use by NPIC in readout of future satellite reconnaissance missions.

g. To provide readily usable cartographic bases on which a variety of information may be overlaid for briefing purposes.

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i. To assist war planners in determining strike routes and target selection. In this respect the Directorate of Intelligence, SAC, was requested to evaluate proofs of two maps and to suggest types of annotations not already incorporated. The suggestions made were accepted and will be adhered to throughout the program.

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2. Maps produced to date have been classified TOP SECRET (RUFF) and consequently must be given extremely limited distribution. However, because of their potential contribution to the solution of numerous intelligence problems and to the filling of high priority detailed mapping requirements, the interests of the intelligence community could best be served by reducing their classification and control to SECRET NOFORN [REDACTED] as has been done with products resulting from the U-2 program. As a result of reduced classification, non-KEYHOLE-cleared intelligence personnel who require maps as analytical aids will have access for the first time to the most accurate and comprehensive compilations available to the West. Multiple copies of downgraded maps could then be deposited in map libraries without taxing the limited KEYHOLE storage areas and eliminating a number of administrative burdens.

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3. The remainder of this memorandum examines ways and means of achieving downgrading without jeopardizing KEYHOLE security and proposes a step-by-step approach to downgrading that will effect release over a period of time.

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Problems Encountered in Downgrading TALENT-KEYHOLE Photo Maps

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It is therefore necessary to examine the elements which conceivably could reveal the precise nature of the photo base. These elements are the technical characteristics of the photography, the extent of coverage, and the date of acquisition.

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Extent of Coverage

6. Intelligence personnel cleared to the SECRET NOFORN level are well aware of the fact that several overflight programs have collected photography over the Sino-Soviet Bloc. Some of this photography (TALENT and [REDACTED]) was considered highly sensitive and was closely controlled as long as the operations were continuing but subsequently has been downgraded; other programs (Genetrix and [REDACTED]) were classified SECRET or less from the outset. It is, therefore, recognized in the intelligence community and in other government operations and is not denied that the U.S. possesses classified overflight photography and that it is utilizing it in every possible way for intelligence purposes. The sole remaining security considerations are:

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- a. Extent of coverage, and
- b. Date of acquisition (discussed in paragraph below).

Regarding the former, it is recognized that downgrading of photo maps should not be so extensive as to suggest to TALENT [REDACTED]

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personnel (who have not been indoctrinated) into the KEYHOLE program that additional unique material is involved. (One result of downgrading of TALENT and [] photography has been to acquaint unwitting personnel with the fact that considerable overflight activity about which they knew little or nothing has been accomplished.) Consequently, as a means of avoiding the disclosure of total coverage it is proposed to restrict the downgrading of photo maps to those areas covered in large part or contiguous to areas previously photographed. The accompanying map shows the more important areas of existing non-KEYHOLE photography on the Sino-Soviet Bloc and the 1:250,000 map areas considered safe to downgrade provided they meet the cloud free provision discussed above.

Date of Acquisition

7. Non-KEYHOLE-indoctrinated personnel are unaware

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[] This fact is a major reason for the existence of the KEYHOLE security system and should be protected against disclosure. However, because the photo maps are constructed to relatively small scale format and because they are heavily annotated from material drawn from all intelligence sources,

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the indoctrinated person would have considerable difficulty in determining whether the planimetric detail and the cultural features highlighted were derived from the base photography or from collateral source material. Maps already produced from

are annotated from source materials acquired since the photography was obtained. In any case, the date of photo base will either be omitted entirely or coded in a manner designed to be unintelligible to the non-cleared user. The standard procedure of showing the date of the most recent intelligence information will be substituted as the nominal date for downgraded maps.

Summary of Proposed Downgrading Procedures

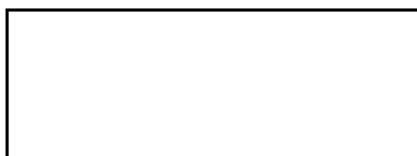
8. Only photomaps which adhere to the following specifications will be downgraded to SECRET NOFORN

a. Those free of clouds or those from which clouds and their shadows have been completely removed either by photographic retouching or by patching from subsequent cloud-free photography.

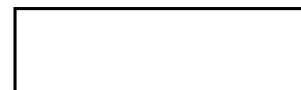
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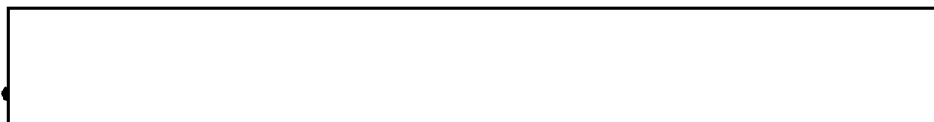


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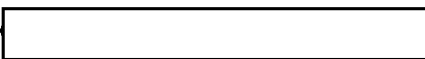
b. Those made from mosaics prepared in such a way as to disguise the characteristics of the original photographic format.



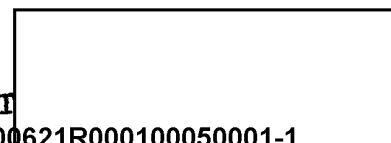
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d. Those on which the date of the photographic base is obscured by the planimetric detail or by annotations from collateral sources  Photo date, if used at all, will be coded.

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Copy 1--DDI(P) TCO
12--OCI TCO
13--OSI TCO
14--ORR TCO
15--DIRNPIC
16--TSO CIA
17--OPS OFF/NPIC
18--C/DMD/NPIC
19--DDP TCO
20--Intel Staff/DPD
21--SO/DPD
22-27--C/SRS/DPD/DDP

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*General
Sanitization*

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COMOR D-39
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8 June 1961

MEMORANDUM FOR: Members of COMOR

SUBJECT: AMS-CIA TALENT/KEYHOLE Photo Map Program

As requested by the Chairman, COMOR the following is a summary of the oral briefing presented to COMOR on 23 May 1961. Attached are press proofs of three map areas for members retention.

A. Purposes of the Photo Map Program

1. To provide a working tool for intelligence analysts who are responsible for assessing the development of Sino-Soviet military and scientific programs and who are relying increasingly on intensive area analysis in arriving at judgements.
2. To provide all intelligence analysts with an infallible data base of priority information against which to check new material and from which to determine areal interrelationships.
3. To assist intelligence collectors by providing accurate maps on which to pinpoint targets to be collected by means other than satellite reconnaissance. In addition, the maps can prove valuable as guides toward the elimination of collection requirements already satisfied.
4. To provide the military services with complete large-scale interim maps to cover planning needs until topographic maps can be compiled.
5. To improve the geodetic accuracy of existing map holdings. (Although the photo maps are primarily oriented toward presenting collated intelligence, the best available geodetic control data is used in their construction).
6. To provide a systematic presentation of annotated Keyhole photography for use by NPIC in readout of future satellite reconnaissance missions.
7. To provide readily useable cartographic bases on which a variety of information may be overlaid for briefing purposes.

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[REDACTED]

[REDACTED]

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[REDACTED]

B. Types of Intelligence Annotated (selected from full list of over 30 categories)

1. Land and water transportation routes. (Because of the intelligence importance of rail spurs and sidings an intensive effort is made to ascertain the economic or military justification of those discernible on photography).

2. Major drainage systems

3. Extent of urbanization

4. Areas under cultivation at time of photography

[REDACTED]

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7. Major industrial installations

8. Construction projects

9. Meteorological stations

10. Power lines

[REDACTED]

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12. Man-made objects over 200 feet above surrounding terrain. (requested by SAC)

[REDACTED]

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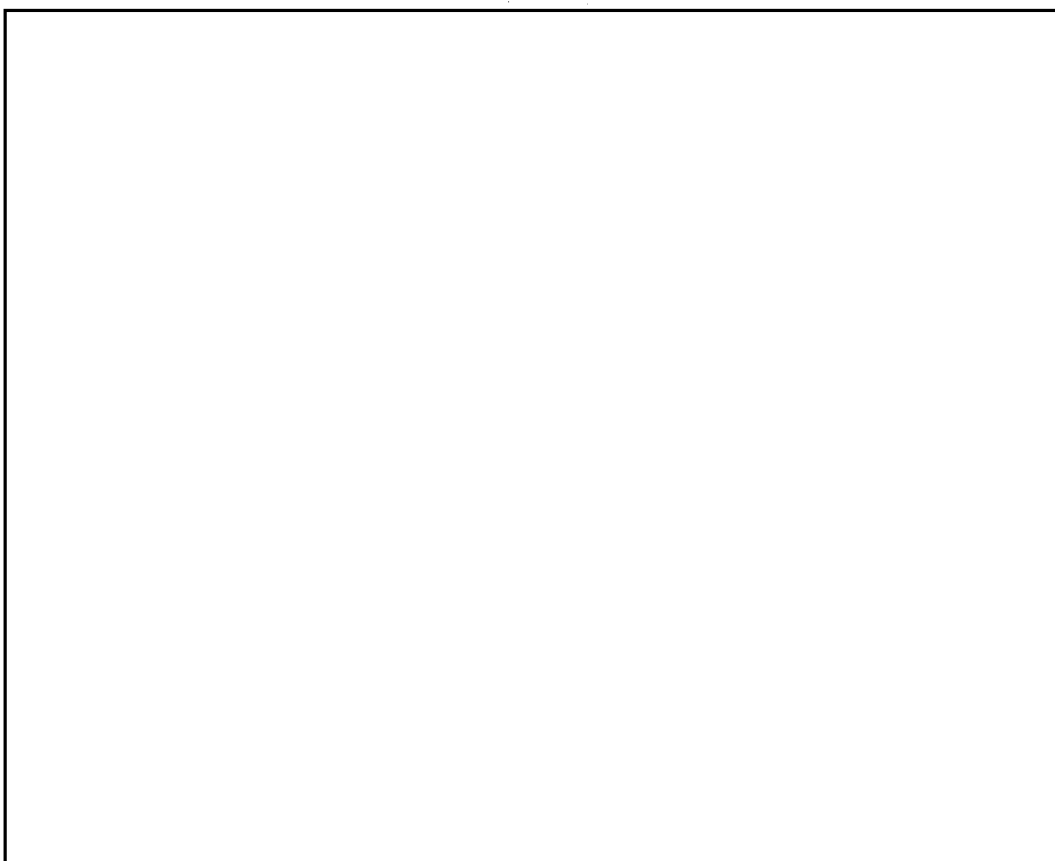


14. AAA order of battle (requested by SAC)

C. Procedures Followed in Compiling Maps

In response to priorities established by the TCO/ORR, CIA, the Engineer Special Projects area, Army Map Service (ESPA) prepares 1:250,000 scale map mosaics of Keyhole photography corresponding to sheet lines already established for the UTM topographic series. ESPA personnel highlight in color the natural and cultural features as are visible on the photography.

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D.

E. Production Schedule

An exchange of correspondence between the Deputy Director/Intelligence, CIA and the Assistant Chief of Staff/Intelligence, Army has established a rate of production of 30 maps

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per month to be achieved by 15 September 1961. At this rate, and assuming future KEYHOLE missions to fill existing coverage gaps, five years will be required to complete the program relating to the USSR. Both CIA and AMS stand ready, however, to increase production should new material or new priorities warrant a speedup.

F. Distribution

1. COMOR members are requested to canvass the appropriate components within their departments or agencies to determine the quantities of photo map sheets required. Other than classification restrictions, no limit on number of copies available for any component is contemplated.
2. It is requested that the requirements thus determined be submitted to the Army Member, COMOR, Attention: [redacted] via appropriate TALENT/KEYHOLE channels so as to reach the addressee by 17 June, 1961.
3. The Army Member will consolidate the requirements and forward them to ESPA, Army Map Service, with appropriate distribution instruction.
4. Because of the restrictions imposed on receipting and storing RUFF material, it is requested that members indicate proper addresses of designated recipients in order that the TCO Army can effect prompt dispatch and delivery.
5. As new sheets are printed, distribution will be affected by the TCO, Army without re-canvass of members. Any amendments to initial distribution requirements should be directed to the Army member COMOR as indicated in F 1 above.

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[redacted]
Chairman
Committee on Overhead Reconnaissance

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Attachments:

1:250,000 scale photo map press proofs

TAK 703-61 - # 1
TAK 700-61 - # 40
TAK 705-61 - # 2

- Copy 1 -- Chairman COMOR
2 -- State TCO
3 -- OSD
4 -- JCS TCO
5 -- OAC SI TCO
6 -- ONI TCO
7 -- AFCIN TCO
8 -- NSA TCO
9 -- DD/I (P) TCO
10 - OCI TCO
11 - OSI TCO
12 - Director, NPIC
13 - Intel Staff, DFD
14 - C/DMD/ NPIC

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Figure 1 illustrates the relationship between a 2D array and a 1D array. The 2D array is a 2x2 grid with elements MV, MV, MU, and NU. The 1D array is a single row with elements MV, MU, NU, and NU. Arrows indicate the mapping from the 2D array to the 1D array, showing that the 1D array is a flattened version of the 2D array.

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